

TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		ATTORNEY'S DOCKET NUMBER: 2-1032-192
		U.S. APPLICATION NO. (If known, see 37 CFR 1.5) (Not Yet Assigned - U.S. National Phase of Int'l PCT) 10/070204
INTERNATIONAL APPLICATION NO. PCT/FR00/02567	INTERNATIONAL FILING DATE September 15, 2000	PRIORITY DATE CLAIMED September 17, 1999
TITLE OF INVENTION: COOKED MEAT PRODUCT AND METHOD OF PREPARING SAME		
APPLICANT(S) FOR DO/EO/US Claude ROLLIER		

Applicant herewith submits to the United States Designated/Elected Office(DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(I).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ has been transmitted by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
 - a. ☒ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☐ have not been made and will not be made
8. ☒ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). (Executed)
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.56, 1.97 and 1.98 with PTO Form 1449 attached;
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☒ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.

16. ☒ Other items or information:

PCT International Application Published Under the Patent Cooperation Treaty (Cover Page);
PCT International Search Report;
PCT International Preliminary Examination;
PCT Request;

10/070204

17. ☒ The following fees are submitted:

BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)):

Search report has been prepared by the EPO or JPO \$ 890.00
 International preliminary examination fee paid to USPTO (37 CFR 1.482) \$
 No international preliminary examination fee paid to USPTO (37 CFR 1.482
 but international search fee paid to USPTO (37 CFR 1.445(a)(2)) \$
 Neither international preliminary examination fee (37 CFR 1.482) nor
 international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$
 International preliminary examination fee paid to USPTO (37 CFR 1.482)
 and all claims satisfied provision of PCT Article 33(2)-(4) \$

ENTER APPROPRIATE BASIC FEE AMOUNT =				\$890.00	
Surcharge of \$130.00 for furnishing the oath or declaration later than <input checked="" type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$0.00	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total Claims	11 -20 =	0	X \$18.00	\$0	
Independent Claims	2 - 3 =	0	X \$80.00	\$0	
Multiple dependent claims(s) (if applicable) Yes			+ \$0.00	\$0	
TOTAL OF ABOVE CALCULATIONS =				\$890.00	
Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity must also be filed. (Note 37 CFR 1.9, 1.27, 1.28).				\$445.00	
SUBTOTAL =				\$445.00	
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)). +				\$ 0.00	
TOTAL NATIONAL FEE =				\$445.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31).					
\$ 40.00 per property +				\$0.00	
TOTAL FEES ENCLOSED =				\$445.00	
				Amount to be:	
				refunded	\$
				charged	\$

- a. ☒ A check in the amount of **\$445.00** to cover the above fees is enclosed.
 b. ☐ Please charge my Deposit Account No. 08-1650 in the amount of \$_____ to cover the above fees. A
duplicate copy of this sheet is enclosed.
 c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any
overpayment to Deposit Account No. 08-1650.

**NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive
(37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.**

SEND ALL CORRESPONDENCE TO:
 HENDERSON & STURM LLP
 206 Sixth Avenue
 Suite 1213
 Des Moines, Iowa 50309-4076
 Telephone: (515) 288-9589

Michael O. Sturm
 Michael O. Sturm
 Reg. No. 26, 078

CERTIFICATION OF TRANSLATION

I, Vivien BANHOLZER, of CABINET PLASSERAUD, 84, rue d'Amsterdam, 75440 PARIS
CEDEX 09, FRANCE, do hereby declare that I am well acquainted with the French and
English languages, and verify that the document attached is a true English language
translation of the text of International Patent Application no. PCT/FR00/02567.

Dated this 22th of February 2002.


Vivien BANHOLZER

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of)
ROLLIER Claude)
Serial No.: Not assigned yet) Art Unit : Not assigned
yet
Filed: PCT filing date: 15/09/2000) Examiner : Not assigned
yet

FOR : COOKED MEAT PRODUCT AND METHOD OF PREPARING SAME

PRELIMINARY AMENDMENT

Honorable Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir :

Please amend the above-identified application as
follows :

IN THE ABSTRACT

The Applicant herewith provides the following new
abstract :

-- The invention relates to a salt-treated cooked pork or
poultry product which is free of preservatives in the form of
nitrates or nitrites and to a process for making the same. --

This abstract is provided on a separate sheet.

IN THE DESCRIPTION

Please add the following titles in the description:

- on page 1, after the title: --TECHNICAL FIELD OF THE INVENTION--
- on page 1, between lines 8 and 9: --BACKGROUND OF THE ART--
- on page 2, between lines 35 and 36: --DESCRIPTION OF THE INVENTION--.

A substitute specification, taking into account the following amendments is herewith provided.

IN THE CLAIMS

Please delete without prejudice claims 1 to 6 and substitute therefor new claims 7 to 17 as follows:

--7. (New) A method for preparing salt-treated, cooked pork or poultry products employing a pickling step, wherein the conventional pickling solution is replaced with a solution containing:

- a food-grade alcohol,
 - table salt,
 - but containing no preservative in the form of nitrates or nitrites,
- said solution being injected under pressure into the product and said product being put under a vacuum in bags before cooking.

8. (New) The method as claimed in claim 7, wherein the cooked pork or poultry products are selected from the group consisting of pork leg and shoulder, poultry legs, turkey and chicken legs, cooked roasts from pork, turkey and turkey poult.

9. (New) The method as claimed in claim 7, wherein the solution further contains other ingredients selected from the group consisting of sugars and flavorings.

10. (New) The method as claimed in claim 7, consisting in carrying out the following steps:

- cutting and deboning the pork or poultry products;
- injecting under pressure a pickling solution containing a food-grade alcohol, table salt, but containing no preservative in the form of nitrates or nitrites;
- continuing the impregnation of the pork or poultry products with the pickling solution by mixing in a vacuum churn;
- forming the pork or poultry products in vacuum bags;
- cooking; and
- cooling.

11. (New) The method as claimed in claim 10, wherein the solution further contains other ingredients selected from the group consisting of sugars and flavorings.

12. (New) A salt-treated, cooked pork or poultry product, obtained using the method of claim 7, which contains food-grade alcohol and which is free of any preservative in the form of nitrates or nitrites.

13. (New) The product according to claim 12, wherein the product is selected from the group consisting of pork leg and shoulder, poultry legs, turkey or chicken legs, cooked roasts from pork, turkey and turkey poult.

14. (New) The product according to claim 12, wherein the alcohol is selected from the group consisting of wines and spirits, and mixtures thereof.

15. (New) The cooked product according to claim 12, wherein it furthermore contains flavorings, sugars or other ingredients of a conventional pickling solution.

16. (New) A pickling solution for butchery and charcuterie products, containing a food-grade alcohol, table salt.

17. (New) The pickling solution according to claim 16 further comprising other ingredients selected from the group consisting of sugars and flavorings, said pickling solution

being free of any preservative in the form of nitrates and nitrites. --

REMARKS

By this amendment, claims 1 to 6 have been withdrawn from examination without prejudice and have been replaced with new claims 7-17. Claims 7 to 17 are pending.

The expression "*characterized in that*" has been replaced by "*wherein*" or other words throughout the whole claims.

The expression "*chosen from the group comprising*" are replaced by "*selected from the group consisting of*" throughout the whole claims.

New claim 7 corresponds to claim 1.

New claim 8 recites the particular pork or poultry products of claim 7.

New claim 9 recites the optional ingredients of the solution set forth in claim 7.

New claim 10 corresponds to claim 2. In new claim 10, the expression "*the pieces of meat*" is replaced by "*the pork or poultry product*" in order to give antecedent basis in claim 7.

New claim 11 recites the optional ingredients of the solution set forth in claim 10.

New claim 12 corresponds to claim 3.

New claim 13 recites the particular pork or poultry products of claim 12.

New claim 14 corresponds to claim 4.

New claim 15 corresponds to claim 5.

New claim 16 corresponds to claim 6.

New claim 17 recites the optional ingredients of the solution of claim 16.

Favorable consideration and prompt allowance of these claims are respectfully requested.

Respectfully submitted,

March 4, 2002
Date

Michael O. Sturm
Michael O. Sturm
Reg. No. 26,078

Encl.: - substitute specification.

HENDERSON & STURM LLP
206 Sixth Avenue, Suite 1213
Des Moines, Iowa 50309-4076

Telephone: 515-288-9589
Telefax: 515-288-4860

COOKED MEAT PRODUCT AND METHOD OF PREPARING SAME**TECHNICAL FIELD OF THE INVENTION**

5 The present invention relates to a salt-treated, cooked pork or poultry product, characterized in that it is free of preservatives in the form of nitrates or nitrites.

It also relates to a method for preparing these products.

BACKGROUND OF THE ART

10 The salt-treated, cooked pork and poultry products intended by the present invention are chosen from the group comprising especially pork leg and shoulder, poultry legs, particularly turkey and chicken legs, and
15 cooked roasts from pork, turkey and turkey poult.

The cooked pork and poultry products according to the present invention are salt-treated in such a way that the conventional pickling solution is replaced with a solution containing a food-grade alcohol, table
20 salt and, optionally, other ingredients which may form part of the pickling brine, such as sugars, flavorings, antioxidants, etc., but contain no preservatives in the form of nitrates or nitrites.

Within the context of the present patent
25 application, the term "preservative" is understood to mean any substance which extends the preservation life of foodstuffs by protecting them from degradation due to microorganisms. This definition is taken from the Code of Uses of Cold-Meats, 1997 Edition, page 2, 359.

30 The assignee is already the proprietor of a European patent application, filed on May 28, 1999 under the number 98/401278, which describes a method for preparing meat products using a pickling step.

This method is characterized in that the pickling
35 brine is substituted, in part or in its entirety, with food-grade alcohol. It allows meat products to be obtained which have improved organoleptic qualities,

while maintaining their coloration, their preservation properties and their cutability.

However, this patent application specifies that the brine, or pickling solution, consists of water to which nitrated salt, antioxidants, preservatives, sugars and flavorings have been added.

The method described in that patent application always results in products containing nitrites, since the pickling solution contains nitrites, even if the water itself is replaced with a food-grade alcohol.

The use of nitric acid salts as preservatives for meat has been known for a very long time. The addition of potassium nitrate, known by the name saltpeter, to meat is extremely ancient. In point of fact, documents reveal that it was commonly used in the Middle Ages.

The nitrate is reduced to nitrite under the action of nitrate reductases produced by microbes naturally present in meat.

The antibacterial effect of the nitrites is beneficial because of the fact that it is exerted on a large number of bacterial germs. Above all, the nitrites inhibit the growth of *bacillus botulinus* - a very common microbe which produces a fatal toxin.

However, nitrites present both direct and indirect toxicity.

With regard to their direct toxicity, they convert human myoglobin and hemoglobin into metmyoglobin and methemoglobin, thus inhibiting their ability to transport oxygen through the body.

As regards their indirect toxicity, they may react with amines, coming from the degradation of proteins, to form nitrosamines. Nitrosamines are toxic, carcinogenic and mutagenic.

Thus, the use of nitrates/nitrites in meat products, especially by including them in the pickling solution, suffers from a major drawback, namely the toxicity of these products.

DESCRIPTION OF THE INVENTION

However, the assignee has, surprisingly and unexpectedly, discovered through the extensive work and research which it has carried out on the preparation of salt-treated meat products, that it is possible to obtain a salt-treated product entirely satisfactorily from the standpoint of its preservation by essentially replacing the pickling solution with a mixture of table salt and a food-grade alcohol, without any nitrate-based or nitrite-based preservative being present, which preservative is normally present in a conventional pickling solution.

Bacterial control in the products according to the invention is in fact provided by the presence of alcohol fixed in the flesh of the salt-treated, cooked pork or poultry product. The product is preserved after vacuum cooking in a bag without it being necessary to use nitrates or nitrites. It follows that there is no risk of toxic by-products, of the type described above, developing in the product.

The salt-treated, cooked pork or poultry products according to the invention are free of any preservative in the form of nitrates or nitrites and therefore represent real progress in terms of food safety for consumers.

The food-grade alcohol is chosen from the group containing wines and spirits, and mixtures thereof.

The amount of alcohol contained in the products depends on that used in the pickling solution. It is detectable by the methods well known to those skilled in the art for the chemical analysis and detection of ethyl alcohol.

Of course, the product according to the invention may also contain other ingredients usually present in a conventional pickling solution, such as sugars, flavorings, antioxidants, etc.

The sugars are chosen from the group comprising especially glucose, saccharose and dextrins, or mixtures thereof.

The flavorings are chosen according to the final taste that a person skilled in the art wishes to give the cooked pork or poultry product.

5 The antioxidants are chosen from the group comprising food-grade antioxidants and especially ascorbic acid or salts thereof.

10 Other food-grade products used in pickling brines may also be added to the pickling solution, such as especially texture stabilizers, such as gums, and flavor-fixing agents, such as glutamates, or mixtures thereof.

15 The method of preparing a salt-treated, cooked pork or poultry product according to the invention is characterized in that, during the pickling step, the pickling solution is replaced with a solution consisting of a food-grade alcohol, table salt and, optionally, other ingredients which may form part of a conventional pickling solution, but without the addition of preservatives in the form of nitrates or
20 nitrites.

According to a preferred way of implementing the invention, the method consists in carrying out the following steps:

- 25 - cutting and deboning the pieces of meat;
- injecting under pressure a pickling solution containing a food-grade alcohol, table salt and, optionally, other ingredients such as sugars and flavorings, but containing no preservative in the form of nitrates or
30 nitrites;
- continuing the impregnation of the pieces of meat with the pickling solution by mixing in a vacuum churn;
- forming the pieces of meat in vacuum bags;
- 35 - cooking; and
- cooling.

The invention also relates to a pickling solution for butchery and charcuterie products, characterized in that it contains a food-grade alcohol, table salt and,

optionally, other ingredients such as sugars and flavorings and in that it is free of any preservative in the form of nitrates or nitrites.

5 A better understanding of the invention will be gained from the examples which follow, these being given purely by way of illustration.

EXAMPLE 1: PREPARATION OF A PICKLING SOLUTION ACCORDING TO THE INVENTION

10

A pickling solution was prepared by mixing the following ingredients:

	11° white wine	30 kg
	SPH	0.3 kg
15	Bouquet 400	2.4 kg
	Glutonic V10	4.8 kg
	ascorbic acid	0.315 kg
	table salt	4.5 kg.

20 SPH is a sodium polyphosphate, Bouquet 400 is a mixture of flavorings and Glutonic V10 is a mixture of dextrose and table salt. These products are all sold by Jeager.

EXAMPLE 2: PREPARATION OF COOKED PORK LEG WITH THE AID OF THE PICKLING SOLUTION PREPARED IN EXAMPLE 1

25

30 A pork leg was cut and deboned. Next, the pickling solution prepared in Example 1 was injected under pressure directly into the deboned leg, using hollow needles, in an amount of 15 kg of pickling brine per 100 kg of meat. Impregnation with the pickling brine was continued in a rotary vacuum churn at a temperature of between 4 and 6°C for 14 to 18 hours.

35 The churn was drained and the leg pieces put into plastic bags, and then into a mold to form them.

The pieces of meat were put under a vacuum and then cooked in a wet steam oven with the temperature rising in stages, so as to reach a core temperature of

65°C. The total cooking time was between 14 and 18 hours.

Next, the leg pieces were removed from the oven and placed for 24 hours in a rapid cooling room in
5 which the temperature was set to between 2 and 4°C.

They were then stored in a refrigerated room at a temperature of between 2 and 4°C.

A cooked leg was thus obtained which had the taste of white wine and had long preservation qualities
10 resulting from it being stabilized with respect to bacterial germs.

CLAIMS:

7. (New) A method for preparing salt-treated,
cooked pork or poultry products employing a pickling
5 step, wherein the conventional pickling solution is
replaced with a solution containing:

- a food-grade alcohol,
- table salt,
- but containing no preservative in the form or
10 nitrates or nitrites,
said solution being injected under pressure into the
product and said product being put under a vacuum in
bags before cooking.

8. (New) The method as claimed in claim 7,
15 wherein the cooked pork or poultry products are
selected from the group consisting of pork leg and
shoulder, poultry legs, turkey and chicken legs, cooked
roasts from pork, turkey and turkey poult.

9. (New) The method as claimed in claim 7, wherein
20 the solution further contains other ingredients
selected from the group consisting of sugars and
flavorings.

10. (New) The method as claimed in claim 7,
consisting in carrying out the following steps:

25 - cutting and deboning the pork or poultry
products;

- injecting under pressure a pickling solution
containing a food-grade alcohol, table salt, but
containing no preservative in the form or nitrates or
30 nitrites;

- continuing the impregnation of the pork or
poultry products with the pickling solution by mixing
in a vacuum churn;

- forming the pork or poultry products in vacuum bags;

- cooking; and

- cooling.

5 11. (New) The method as claimed in claim 10, wherein the solution further contains other ingredients selected from the group consisting of sugars and flavorings.

10 12. (New) A salt-treated, cooked pork or poultry product, obtained using the method of claim 7, which contains food-grade alcohol and which is free of any preservative in the form of nitrates or nitrites.

15 13. (New) The product according to claim 12, wherein the product is selected from the group consisting of pork leg and shoulder, poultry legs, turkey or chicken legs, cooked roasts from pork, turkey and turkey poult.

20 14. (New) The product according to claim 12, wherein the alcohol is selected from the group consisting of wines and spirits, and mixtures thereof.

 15. (New) The cooked product according to claim 12, wherein it furthermore contains flavorings, sugars or other ingredients of a conventional pickling solution.

25 16. (New) A pickling solution for butchery and charcuterie products, containing a food-grade alcohol, table salt.

30 17. (New) The pickling solution according to claim 16 further comprising other ingredients selected from the group consisting of sugars and flavorings, said pickling solution being free of any preservative in the form of nitrates and nitrites.

ABSTRACT

The invention relates to a salt-treated cooked pork or poultry product which is free of preservatives in the form of nitrates or nitrites and to a process for making the same.

100-100000

CERTIFICATION OF TRANSLATION

I, Vivien BANHOLZER, of CABINET PLASSERAUD, 84, rue d'Amsterdam, 75440 PARIS CEDEX 09, FRANCE, do hereby declare that I am well acquainted with the French and English languages, and verify that the document attached is a true English language translation of the claims of International Patent Application no. PCT/FR00/02567 amended during the PCT phase.

Dated this 22nd of February 2002.


Vivien BANHOLZER

Amended pages

CLAIMS

1. A method for preparing salt-treated, cooked
pork or poultry products chosen from the group
5 comprising especially pork leg and shoulder, poultry
legs, particularly turkey and chicken legs, cooked
roasts from pork, turkey and turkey poult, employing a
pickling step, characterized in that the conventional
pickling solution is replaced with a solution
10 containing a food-grade alcohol, table salt and,
optionally, other ingredients such as sugars and
flavorings, but containing no preservative in the form
of nitrates or nitrites, said solution being injected
under pressure into the product and said product being
15 put under a vacuum in bags before cooking.

2. The method as claimed in claim 1, characterized
in that it consists in carrying out the following
steps:

- cutting and deboning the pieces of meat;
- 20 - injecting under pressure a pickling solution
containing a food-grade alcohol, table salt and,
optionally, other ingredients such as sugars and
flavorings, but containing no preservative in the form
or nitrates or nitrites;
- 25 - continuing the impregnation of the pieces of
meat with the pickling solution by mixing in a vacuum
churn;
- forming the pieces of meat in vacuum bags;
- cooking; and
- 30 - cooling.

3. A salt-treated, cooked pork or poultry product,
chosen from the group comprising especially pork leg
and shoulder, poultry legs, particularly turkey or
chicken legs, cooked roasts from pork, turkey and
35 turkey poult, obtained using the method of claim 1 or
2, characterized in that it contains food-grade alcohol
and is free of any preservative in the form of nitrates

or nitrites.

4. The cooked product as claimed in claim 3,
characterized in that the alcohol is chosen from the
group comprising wines and spirits, and mixtures
5 thereof.

5. The cooked product as claimed in claim 3 or 4,
characterized in that it furthermore contains
flavorings, sugars or other ingredients of a
conventional pickling solution.

10 6. A pickling solution for butchery and
charcuterie products, characterized in that it contains
a food-grade alcohol, table salt and, optionally, other
ingredients such as sugars and flavorings and in that
it is free of any preservative in the form of nitrates
15 and nitrites.

COOKED MEAT PRODUCT AND METHOD OF PREPARING SAME

The present invention relates to a salt-treated, cooked pork or poultry product, characterized in that
5 it is free of preservatives in the form of nitrates or nitrites.

It also relates to a method for preparing these products.

The salt-treated, cooked pork and poultry products
10 intended by the present invention are chosen from the group comprising especially pork leg and shoulder, poultry legs, particularly turkey and chicken legs, and cooked roasts from pork, turkey and turkey poult.

The cooked pork and poultry products according to
15 the present invention are salt-treated in such a way that the conventional pickling solution is replaced with a solution containing a food-grade alcohol, table salt and, optionally, other ingredients which may form part of the pickling brine, such as sugars, flavorings,
20 antioxidants, etc., but contain no preservatives in the form of nitrates or nitrites.

Within the context of the present patent application, the term "preservative" is understood to mean any substance which extends the preservation life
25 of foodstuffs by protecting them from degradation due to microorganisms. This definition is taken from the Code of Uses of Cold-Meats, 1997 Edition, page 2, 359.

The assignee is already the proprietor of a European patent application, filed on May 28, 1999
30 under the number 98/401278, which describes a method for preparing meat products using a pickling step.

This method is characterized in that the pickling brine is substituted, in part or in its entirety, with food-grade alcohol. It allows meat products to be
35 obtained which have improved organoleptic qualities, while maintaining their coloration, their preservation properties and their cutability.

However, this patent application specifies that the brine, or pickling solution, consists of water to which nitrited salt, antioxidants, preservatives, sugars and flavorings have been added.

5 The method described in that patent application always results in products containing nitrites, since the pickling solution contains nitrites, even if the water itself is replaced with a food-grade alcohol.

10 The use of nitric acid salts as preservatives for meat has been known for a very long time. The addition of potassium nitrate, known by the name saltpeter, to meat is extremely ancient. In point of fact, documents reveal that it was commonly used in the Middle Ages.

15 The nitrate is reduced to nitrite under the action of nitrate reductases produced by microbes naturally present in meat.

20 The antibacterial effect of the nitrites is beneficial because of the fact that it is exerted on a large number of bacterial germs. Above all, the nitrites inhibit the growth of *bacillus botulinus* - a very common microbe which produces a fatal toxin.

However, nitrites present both direct and indirect toxicity.

25 With regard to their direct toxicity, they convert human myoglobin and hemoglobin into metmyoglobin and methemoglobin, thus inhibiting their ability to transport oxygen through the body.

30 As regards their indirect toxicity, they may react with amines, coming from the degradation of proteins, to form nitrosamines. Nitrosamines are toxic, carcinogenic and mutagenic.

35 Thus, the use of nitrates/nitrites in meat products, especially by including them in the pickling solution, suffers from a major drawback, namely the toxicity of these products.

However, the assignee has, surprisingly and unexpectedly, discovered through the extensive work and research which it has carried out on the preparation of salt-treated meat products, that it is possible to

obtain a salt-treated product entirely satisfactorily from the standpoint of its preservation by essentially replacing the pickling solution with a mixture of table salt and a food-grade alcohol, without any nitrate-based or nitrite-based preservative being present, which preservative is normally present in a conventional pickling solution.

Bacterial control in the products according to the invention is in fact provided by the presence of alcohol fixed in the flesh of the salt-treated, cooked pork or poultry product. The product is preserved after vacuum cooking in a bag without it being necessary to use nitrates or nitrites. It follows that there is no risk of toxic by-products, of the type described above, developing in the product.

The salt-treated, cooked pork or poultry products according to the invention are free of any preservative in the form of nitrates or nitrites and therefore represent real progress in terms of food safety for consumers.

The food-grade alcohol is chosen from the group containing wines and spirits, and mixtures thereof.

The amount of alcohol contained in the products depends on that used in the pickling solution. It is detectable by the methods well known to those skilled in the art for the chemical analysis and detection of ethyl alcohol.

Of course, the product according to the invention may also contain other ingredients usually present in a conventional pickling solution, such as sugars, flavorings, antioxidants, etc.

The sugars are chosen from the group comprising especially glucose, saccharose and dextrins, or mixtures thereof.

The flavorings are chosen according to the final taste that a person skilled in the art wishes to give the cooked pork or poultry product.

The antioxidants are chosen from the group comprising food-grade antioxidants and especially ascorbic acid or salts thereof.

5 Other food-grade products used in pickling brines may also be added to the pickling solution, such as especially texture stabilizers, such as gums, and flavor-fixing agents, such as glutamates, or mixtures thereof.

10 The method of preparing a salt-treated, cooked pork or poultry product according to the invention is characterized in that, during the pickling step, the pickling solution is replaced with a solution consisting of a food-grade alcohol, table salt and, optionally, other ingredients which may form part of a
15 conventional pickling solution, but without the addition of preservatives in the form of nitrates or nitrites.

20 According to a preferred way of implementing the invention, the method consists in carrying out the following steps:

- cutting and deboning the pieces of meat;
- injecting under pressure a pickling solution containing a food-grade alcohol, table salt and, optionally, other ingredients such as
25 sugars and flavorings, but containing no preservative in the form of nitrates or nitrites;
- continuing the impregnation of the pieces of meat with the pickling solution by mixing in a
30 vacuum churn;
- forming the pieces of meat in vacuum bags;
- cooking; and
- cooling.

35 The invention also relates to a pickling solution for butchery and charcuterie products, characterized in that it contains a food-grade alcohol, table salt and, optionally, other ingredients such as sugars and flavorings and in that it is free of any preservative in the form of nitrates or nitrites.

A better understanding of the invention will be gained from the examples which follow, these being given purely by way of illustration.

5 **EXAMPLE 1: PREPARATION OF A PICKLING SOLUTION ACCORDING TO THE INVENTION**

A pickling solution was prepared by mixing the following ingredients:

10	11° white wine	30 kg
	SPH	0.3 kg
	Bouquet 400	2.4 kg
	Glutonic V10	4.8 kg
	ascorbic acid	0.315 kg
15	table salt	4.5 kg.

SPH is a sodium polyphosphate, Bouquet 400 is a mixture of flavorings and Glutonic V10 is a mixture of dextrose and table salt. These products are all sold by Jeager.

20

EXAMPLE 2: PREPARATION OF COOKED PORK LEG WITH THE AID OF THE PICKLING SOLUTION PREPARED IN EXAMPLE 1

25 A pork leg was cut and deboned. Next, the pickling solution prepared in Example 1 was injected under pressure directly into the deboned leg, using hollow needles, in an amount of 15 kg of pickling brine per 100 kg of meat. Impregnation with the pickling brine was continued in a rotary vacuum churn at a temperature
30 of between 4 and 6°C for 14 to 18 hours.

The churn was drained and the leg pieces put into plastic bags, and then into a mold to form them.

35 The pieces of meat were put under a vacuum and then cooked in a wet steam oven with the temperature rising in stages, so as to reach a core temperature of 65°C. The total cooking time was between 14 and 18 hours.

Next, the leg pieces were removed from the oven and placed for 24 hours in a rapid cooling room in which the temperature was set to between 2 and 4°C.

They were then stored in a refrigerated room at a
5 temperature of between 2 and 4°C.

A cooked leg was thus obtained which had the taste of white wine and had long preservation qualities resulting from it being stabilized with respect to bacterial germs.

CLAIMS:

1. A salt-treated, cooked pork or poultry product,
chosen from the group comprising especially pork leg
5 and shoulder, poultry legs, particularly turkey or
chicken legs, cooked roasts from pork, turkey and
turkey poult, characterized in that it contains food-
grade alcohol and is free of any preservative in the
form of nitrates or nitrites.

10 2. The product as claimed in claim 1,
characterized in that the alcohol is chosen from the
group comprising wines and spirits, and mixtures
thereof.

15 3. The product as claimed in either of claims 1
and 2, characterized in that it furthermore contains
flavorings, sugars or other ingredients of a
conventional pickling solution.

20 4. A method for preparing salt-treated, cooked
pork or poultry products chosen from the group
comprising especially pork leg and shoulder, poultry
legs particularly turkey and chicken legs, cooked
roasts from pork, turkey and turkey poult, employing a
pickling step, characterized in that the conventional
pickling solution is replaced with a solution
25 containing a food-grade alcohol, table salt and,
optionally, other ingredients such as sugars and
flavorings, but not containing any preservative in the
form of nitrates or nitrites.

30 5. The method as claimed in claim 4, characterized
in that it consists in carrying out the following
steps:

- cutting and deboning the pieces of meat;
- injecting under pressure a pickling solution
containing a food-grade alcohol, table salt
35 and, optionally, other ingredients such as
sugars and flavorings, but containing no
preservative in the form of nitrates or
nitrites;

- continuing the impregnation of the pieces of meat with the pickling solution by mixing in a vacuum churn;
- forming the pieces of meat in vacuum bags;
- 5 - cooking; and
- cooling.

6. A pickling solution for butchery and charcuterie products, characterized in that it contains a food-grade alcohol, table salt and, optionally, other
10 ingredients such as sugars and flavorings and in that it is free of any preservative in the form of nitrates or nitrites.

15

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(71) Applicant and

(72) Inventor: (for all designated States except US):

ROLLIER, Claude [FR/FR]; 118, avenue Félix Faure,
F-75015 Paris (FR).

(74) Representatives: NARGOLWALLA, Cyra etc.: Cabinet
Plasseraud, 84, rue d'Amsterdam, F-75440 Paris Cedex 09
(FR).

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For an explanation of the two-letter codes and the other abbreviations, reference is made to the explanations ("Guidance Notes on Codes and Abbreviations") at the beginning of each regular edition of the PCT Gazette.

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(54) Title: COOKED MEAT PRODUCT AND METHOD FOR PREPARING SAME

(54) Titre: PRODUIT CUIT DE VIANDE ET PROCEDE POUR SA PREPARATION

(57) Abstract: The invention concerns a pickled cooked product of pork or poultry selected among the group consisting, in particular, of ham and pork shoulder, poultry ham, in particular turkey or chicken, cooked pork, turkey and poultry rolls. The invention is characterised in that it contains food quality alcohol and is totally free of any preservative in the form of nitrates or nitrites.

(57) Abrégé: Produit cuit, traité en salaison, de porc ou de volaille choisi dans le groupe comprenant, notamment, le jambon et l'épaule de porc, le jambon de volaille, en particulier de dinde ou de poulet, les rôtis cuits de porc, de dinde et de dindonneau, caractérisé par le fait qu'il contient de l'alcool de qualité alimentaire et qu'il est libre de tout agent conservateur sous la forme de nitrates ou de nitrites.

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COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY

Docket No. 2-1032-192

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

COOKED MEAT PRODUCT AND METHOD OF PREPARING SAME

the specification of which

(check) ☒ is attached hereto.☐ was filed on _____ as Application Serial No. _____
and was amended on _____ (if applicable).☐ was filed as PCT international application Number _____ on _____
and was amended under PCT Article 19 on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information known to me to be material to patentability of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application (s) designating at least one country other than the United States of America listed below and have also identified below any foreign application for patent or inventor's certificate or of any PCT international application (s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application on which priority is now claimed:

Prior Foreign Application(s)

(Number)	(Country)	(Day/Month/Year Filed)	Priority Claimed
99 11680	FRANCE	17/09/1999	<input checked="" type="checkbox"/>
			Yes No
			Yes No
			Yes No

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

QT FR00/02567	15/09/2000	
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(Application Serial No.)	(Filing Date)	(Status--patented, pending, abandoned)

I hereby appoint the following attorney(s) and/or agents(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: H. Robert Henderson, Reg. No. 18,486; Michael O. Sturm, Reg. No. 26,078; John E. Cepican, Reg. No. 26,851; Richard L. Fix, Reg. No. 28,297; William H. Wright, Reg. No. 26,424; Martin G. Mullen, Reg. No. 28,574; Daniel B. Greenwood, Reg. No. 35,885; and Curtis A. Bell, Reg. No. 36,742.

Address all telephone calls to Martin G. Mullen telephone no. 202/296-3854Address all correspondence to: HENDERSON & STURM telefax no. 202/223-9606Suite 1020
1301 Pennsylvania Avenue, N.W.
Washington, DC 20004-1707

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Full name of sole or first inventor: Claude ROLLIERInventor's signature [Signature]Date Feb 26 2002Residence 75015 PARIS (FRANCE)Citizenship FRENCHPost Office Address 118, avenue Félix Faure 75015 PARIS (FRANCE)

Full name of second joint inventor, if any _____

Second Inventor's signature _____

Date _____

Residence _____

Citizenship _____

Post Office Address _____

Full name of third joint inventor, if any _____

Third Inventor's signature _____

Date _____

Residence _____

Citizenship _____

Post Office Address _____